Index of Authors

ABDEL AAL, TAHIA M. *See* NAGATY, H. F.
AL-DABAGH, M. A. Synergism between coccidia parasites (*Eimeria mitis and E. acervulina*) and malarial parasites (*Plasmodium gallinaceum* and *P. juxtanucleare*) in the chick, 257
ARTHUR, DON R. The synonymy of *Ixodes festai* Rondelli 1926, 497

BAKER, J. R. Trypanosomes of African fresh-water fish: an addendum, 263
BEVERLEY-BURTON, MARY. *See* METTRICK, D. F.

CHAKRAVARTY, G. K. and MAJUMDAR, G. *Dichelyne trionyxi* sp.nov. and *Dichelyne wallagoni* sp.nov., two new species of the family Cucullanidae Cobbold, 1864. (With 4 Figures in the Text), 401
CROWLEY, J. An *in vivo* screening method for anthelmintic activity using *Hymenolepis nana* var. *fraterna* in mice, 339

DOBSON, COLIN. Certain aspects of the host-parasite relationship of *Nematospiroides dubius* (Baylis). I. Resistance of male and female mice to experimental infections, 173,
DOBSON, COLIN. Certain aspects of the host-parasite relationship of *Nematospiroides dubius* (Baylis). II. The effect of sex on experimental infections in the rat (an abnormal host), 499
DOBSON, COLIN. Certain aspects of the host-parasite relationship of *Nematospiroides dubius* (Baylis). III. The effect of a milk diet on experimental infections in the adult male mouse, 511

FITZSIMMONS, W. M. A new nematode *Pharyngodon morgani* sp.nov., intestinal parasite of a lizard, *Mabuya striata* in Nyasaland. (With 5 Figures in the Text), 395

GOIL, MADAN M. Physiological studies on trematodes—*Fasciola gigantica* carbohydrate metabolism, 335

HARINGTON, J. S. Studies of the amino acids of *Rhodnius prolixus*. I. Analysis of the haemolymph, 309
HARINGTON, J. S. Studies of the amino acids of *Rhodnius prolixus*. II. Analysis of the excretory material. (With 1 Figure in the Text), 319
HOYTE, H. M. D. The protozoa occurring in the hind-gut of cockroaches. I. Responses to changes in environment. (With 4 Figures in the Text), 415
HOYTE, H. M. D. The protozoa occurring in the hind-gut of cockroaches. II. Morphology of *Nyctotherus ovalis*. (With 5 Figures in the Text), 437
HOYTE, H. M. D. The protozoa occurring in the hind-gut of cockroaches. III. Factors affecting the dispersion of *Nyctotherus ovalis*. (With 2 Figures in the Text), 465
HUNTER, G. C. and LEIGH, L. C. Studies on the resistance of rats to the nematode *Nippostrongylus muris* (Yokogawa, 1920). I. Dosage–mortality relationship. (With 1 Figure in the Text), 347
HUNTER, G. C. and LEIGH, L. C. Studies on the resistance of rats to the nematode *Nippostrongylus muris* (Yokogawa, 1920). II. Different routes of immunization and test infection, 353
HUNTER, G. C. and LEIGH, L. C. Studies on the resistance of rats to the nematode *Nippostrongylus muris* (Yokogawa, 1920). III. Attempt to transfer immunity adoptively, 357

JACK, K. M. New species of Near Eastern agamid scale-mites (*Acarina, Pterygosomidae*) with notes on the developmental stages of *Geckobia hemidactyli* Law., 1936. (With 11 Figures in the Text), 241

JACKSON, DOROTHY J. Observations on the biology of *Caraphractus cinctus* Walker (Hymenoptera: Mymaridae), a parasitoid of the eggs of Dytiscidae (Coleoptera). 2. Immature stages and seasonal history with a review of Mymarid larvae. (With 15 Figures in the Text), 269

JAIN, G. P. On a new trematode *Echinoparyphium bagulai* sp.nov., (Echinostomatidae) from *Anas poecilorhyncha*. (With 2 Figures in the Text), 123

KULASIRI, C. and PRASAD, H. A note on the behaviour of an avirulent strain of *Toxoplasma gondii* in some B-vitamin deficient chicks, 265

LAPAGE, GEOFFREY. A list of the parasitic Protozoa, Helminths and Arthropoda recorded from species of the Family Anatidae (Ducks, Geese and Swans), 1

LEE, D. L. Two new species of cryptobiotic (anabiotic) freshwater nematodes, *Actinolaimus hintoni* sp.nov. and *Dorylaimus keilini* sp.nov. (Dorylaimidae). (With 9 Figures in the Text), 237

LEE, D. L. Studies on the origin of the sticky coat on the eggs of the nematode *Thelastoma bulhõesi* (Magalhães, 1900). (With 9 Figures in the Text), 379

LEIGH, L. C. *See* HUNTER, G. C.

MAJUMDAR, G. *See* CHAKRAVARTY, G. K.

METTRICK, D. F. and BEVERLEY-BURTON, MARY. Some cyclophyllidean cestodes from carnivores in Southern Rhodesia. (With 5 Figures in the Text), 533

NAGATY, H. F. and ABDEL AAL, TAHIA M. Trematodes of fishes from the Red Sea. 10. On three new Cryptogonimidae including two new genera. (With 3 Figures in the Text), 233

NARAIN, NARSINGH. Studies on two new Cephaline gregarines from the intestine of Indian insects, *Gryllodes sigillatus* and *Liogryllus bimaculatus*. (With 10 Figures in the Text), 117

NUTTING, WM. B. *Demodex aurati* sp.nov. and *D. criceti*, ectoparasites of the Golden Hamster (*Mesocricetus auratus*). (With 1 Plate and 8 Figures in the Text), 515

PEARSON, J. C. Observations on the morphology and life cycle of *Neodiplostomum intermedium* (Trematoda: Diplostomatidae). (With 31 Figures in the Text), 133

PETER, C. T. and SRIVASTAVA, H. D. On *Cercaria chungathi* Peter & Srivastava, 1955 and its relationship to *Gastrothylax crumenifer* (Creplin). (With 3 Figures in the Text), 111

PRASAD, H. *See* KULASIRI, C.

REES, B. Three British species of the genus *Metaradiophrya* including one new species *M. gardneri*. (With 1 Plate and 3 Figures in the Text), 227

REES, B. Studies on monocystid gregarines. Three *Monocystis* species including two new species *M. cambrensis* and *M. lanceata*. (With 1 Plate and 3 Figures in the Text), 523

REES, GWENDOLEN. Studies on the functional morphology of the Scolex and of the Genitalia in *Echinobothrium brachysoma* Pinter and *E. affine* Diesing from *Raja clavata* L. (With 4 Plates and 39 Figures in the Text), 193

REES, GWENDOLEN. *Echinobothrium acanthinophyllum*, n.sp. from the spiral valve of *Raja montagui* Fowler. (With 2 Plates and 1 Figure in the Text), 407

ROSE, J. H. Some observations on the free-living stages of *Ostertagia ostertagi*, a stomach worm of cattle. (With 8 Figures in the Text), 295

SAUNDERS, D. S. Studies on ovarian development in tsetse flies (*Glossina*, Diptera). (With 3 Figures in the Text), 545

SPICKETT, S. G. Studies on *Demodex folliculorum* Simon (1842). I. Life History. (With 2 Plates and 3 Figures in the Text), 181

SRIVASTAVA, H. D. *See* PETER, C. T.

STANSFIELD, G. The collection of bird fleas from Fair Isle in 1956. (With 4 Figures in the Text), 367

TAFFS, L. F. The *in vitro* action of immune pig serum on second- and third-stage *Ascaris suum* larvae. (With 1 Plate and 2 Figures in the Text), 327

TANDON, R. S. Studies on the excretory system of amphistome parasites of ruminants. II. The genera *Gastrothylax* Poirier, 1883, and *Fischoederius* Stiles & Goldberger, 1910. (With 5 Figures in the Text), 127

TATCHELL, R. J. Studies on the egg of the horse bot-fly, *Gasterophilus intestinalis* (De Geer). (With 6 Figures in the Text), 385

WATSON, D. P. The effect of the mite *Myocoptes musculinus* (C. L. Koch) 1840 on the skin of the white laboratory mouse and its control. (With 2 Figures in the Text), 373

Index of Subjects

Acarina, new species of, parasitic on lizards, 241
Actinolaimus hintoni, sp.nov., a new freshwater nematode species from Northern Nigeria, 237
African freshwater fish, trypanosomes of, 263
Agabus bipustulatus, eggs of, parasitized by *Caraphractus cinctus*, 269
Agama adramitana, lizard host of the scale mite *Pterygosoma adramitana*, 241
A. caucasica, sp.nov., lizard host of the scale mite *Pterygosoma caucasica*, 241
A. mutabilis, lizard host of the scale mite *Pterygosoma mutabilis*, 241
A. colonorum, lizard host of the scale mite *Pterygosoma singularis*, 241
A. sinaita, lizard host of the scale mite *Pterygosoma sinaita*, 241
Allolobophora, caliginosa, host of *Metaradiophrya falcifera*, 227
A. chlorotica, host of *Metaradiophrya hovassei*, 227
Amino acids of *Rhodnius prolixus*, 309, 319
Amphistome trematodes of Indian sheep, goats and buffaloes, excretory system of, 127
Anas poecilorhyncha, host of *Echinoparyphium bagulai*, sp.nov., 123
Anatidae, parasitic Protozoa, Helminths and Arthropods of, 1
Anthelmintics, screening of, by *Hymenolepis nana* var. *fraterna* infections in mice, 339
Aplocystis elongata, synonym of *Monocystis elongata*, 523
Arthropods, parasitic in Anatidae, 1
Ascaris suum, action of immune pig serum on the second and third larvae of, 327
Astomatous ciliates, parasitic in British earthworms, 227

Bird fleas from Fair Isle, 367
Birds, malarial parasites of, synergism with Coccidia in the chick, 257
Bulbocephalus indicus, sp.nov., parasitic in the Indian cricket, *Liogryllus bimaculatus*, 117

Caraphractus cinctus, Mymarid parasitoid of the eggs of Dytiscidae, biology, seasonal history and comparison with other Mymarid larvae, 269
Carbohydrate metabolism of *Fasciola gigantica*, 335
Carnivores, cyclophyllidean cestodes of, in Southern Rhodesia, 533
Cephaline gregarines, two new species of, from Indian crickets, 117
Cercaria, of *Neodiplostomum intermedium*, structure and diagnosis of, 133
Cercaria chungathi, relationship of, to *Gastrothylax crumenifer*, 111
Cestodes, cyclophyllidean, parasitic on Southern Rhodesian carnivores, 533
Charasis dorsalis, lizard host of the scale mite *Pterygosoma foliosetis*, 241
Ciliates, astomatous, parasitic in British earthworms, 227
Coccidia, synergism with bird malarial parasites in the chick, 257
Cockroaches, responses of Protozoa in the hindgut of, to changes in the environment, 415, 437, 465
Crocuta crocuta, host of the cestode *Taenia crocutae* in Southern Rhodesia, 533
Cryptogonimidae, two new genera and three new species of, parasitic in Red Sea fishes, 233

Demodex aurati, sp.nov., ectoparasitic on the Golden Hamster *Mesocricetus auratus*, 515
D. criceti, ectoparasitic on the Golden Hamster *Mesocricetus auratus*, 515
D. folliculorum, life history and *in vitro* culture of, 181
Dichelyne trionyxi, sp.nov., nematode parasite of *Trionyx gangeticus*, in India, 401
D. wallagoni, sp.nov., nematode parasite of *Wallago attu* in India, 401
Diplopylidium paurodex, sp.nov., cestode parasitic in *Genetta rubiginosa* in Southern Rhodesia, 533
Diplostomulum of *Neodiplostomum intermedium* and of related species, 133
Dorylaimus keilini, sp.nov., freshwater nematode from Northern Nigeria, 237
Dytiscidae, eggs of, as hosts of *Caraphractus cinctus*, 269

Earthworms, British, two new and one other species of monocystid gregarines parasitic in, 523
Echinobothrium, species and hosts of, 193
E. acanthinophyllum, sp.nov., parasitic on the spiral valve of *Raja montagui*, 407
E. affine, functional morphology of the scolex and genitalia, 193
E. brachysoma, functional morphology of the scolex and genitalia, 193
Echinoparyphium bagulai, sp.nov., parasitic in *Anas poecilorhyncha*, 123
Eimeria acervulina, synergism of, with *Plasmodium gallinaceum* and *Plasmodium juxtanucleare* in the chick, 257
Eimeria mitis, synergism of, with *Plasmodium gallinaceum* and *Plasmodium juxtanucleare* in the chick, 257
Eisenia foetida, host of *Metaradiophrya gardneri*, 227
, host of *Monocystis cambrensis* and *M. elongata*, 523
Endamoeba blattae, biology of, in the hind-gut of cockroaches, 415
Excretory, material of *Rhodnius prolixus*, analysis of, 309
, system of amphistome trematodes of Indian sheep, goats and buffaloes, 127

Fasciola gigantica, carbohydrate metabolism of, 335
Fair Isle, bird fleas of, 367
Fishes, of the Red Sea, trematodes parasitic in, 233
Fischoederius, elongatus, excretory system of, 127
F. cobboldi, excretory system of, 127
Fleas, of birds on Fair Isle, 367
Freshwater fish, African, trypanosomes of, 263
, Nematodes, from Northern Nigeria, 237

Gasterophilus intestinalis, structure, chemistry, waterproofing and respiratory adaptations of the egg of, 385
Gastrothylax crumenifer, excretory system of, 127
, relation of, to *Cercaria chungathi*, 111
Geckobia hemidactyli, developmental stages of, 241
Genetta rubiginosa, host of *Joyeuxiella paucitestis* and *Diplopylidium paurodex* in Southern Rhodesia, 533
Glossina sp., studies of the ovarian development of, 545
Gregarines, cephaline, two new species of, from Indian crickets, 117
, monocystid, species of, parasitic in British earthworms, 523
Gryllodes sigillatus, Indian cricket host of the cephaline gregarine, *Stenophora gryllodes-sigillata*, 117

Haemolymph, of *Rhodnius prolixus*, analysis of, 309
Helminths, parasitic in Anatidae, 1
Horse bot-fly (*Gasterophilus intestinalis*), studies on the structure, chemistry, waterproofing and respiratory adaptations of the egg of, 385
Hymenolepis nana var. *fraterna*, in mice, use of, for screening anthelmintics, 339

Indian insects, two new species of gregarines of, 117
Immune pig serum, action of, on the second and third larvae of *Ascaris suum*, 327
Ixodes festai, synonymy of, 497

Joyeuxiella fuhrmanni, parasitic in *Zibethailurus serval*, in Southern Rhodesia, structure and taxonomy of, 533
J. paucitestis, sp.nov., parasitic in *Genetta rubiginosa* in Southern Rhodesia, structure and taxonomy of, 533

Labeo macrostoma, trypanosomes of, 263
Larval stages of *Neodiplostomum intermedium*, 133
Lethrinus rostratus, Red Sea fish host of *Paracryptogonimus rostratus*, 233

Liogryllus bimaculatus, Indian cricket host of a new species of cephaline gregarine *Bulbocephalus indicus*, 117
Lizards, as hosts of new species of Pterygosomid Acarina, 241
Lophomonas blattarum, parasitic in the hind-gut of cockroaches, biology of, 115
L. striata, parasitic in the hind-gut of cockroaches, biology of, 415

Mabuya striata, host of the nematode *Pharyngodon morgani*, sp.nov., 395
Malapterurus electricus, trypanosomes of, 263
Malarial parasites of birds, synergism of, with Coccidia in chicks, 257
Mahrosa sargusi, gen.nov., sp.nov., parasitic in the gut of the Red Sea fish, *Sargus noct*, 233
Mesocricetus auratus, Golden Hamster host of *Demodex criceti* and *D. aurati* sp.nov., 515
Metaradiophrya, falcifera, astomatous ciliate parasitic in the earthworm *Allolobophora caliginosa* in Britain, 227
M. gardneri, sp.nov., astomatous ciliate parasitic in the earthworm *Eisenia foetida* in Britain, 227
M. hovassei, astomatous ciliate parasitic in *Allolobophora chlorotica* in Britain, 227
Miracidium of *Neodiplostomum intermedium*, comparison of, with other miracidia, 133
Mites, see *Myocoptes musculinus*, *Pterygosoma*
Monocercomonoides orthopterum, biology of, in the hind-gut of cockroaches, 415
Monocystis cambrensis, sp.nov., parasitic in *Eisenia foetida*, 523
M. elongata, parasitic in *Eisenia foetida*, 523
M. lanceata, sp.nov., parasitic in *Allolobophora caliginosa*, 523
Mouse, male, effect of milk diet on infections of, with *Nematospiroides dubius*, 511
, white, laboratory, effects of *Myocoptes musculinus* on, 373
Mymaridae, larvae, list of, with host eggs, 269
Myocoptes musculinus, effects of, on the skin of white laboratory mice and control of, 373

Nematodes, freshwater, two new species of, from Northern Nigeria, 237
Nematospiroides dubius, infections of the mouse with, effect of milk diet on, 511
, in the rat, effect of the sex of the host on, 499
, host-parasite relationship of, 173, 499
, resistance of male and female mice to, 173
Neodiplostomum intermedium, morphology and life cycle of, 133
Nippostrongylus muris in rats, dosage-mortality relationships of, different routes of, 347
, immunization and test infection of, 353
, transference of immunity adoptively, 357
, resistance of rats to, 347
Nyctotherus ovalis, in the hind-gut of cockroaches, 415
, biology, morphology, cysts, cyst wall, and excystation of, 437
, factors influencing the dispersion of, 465

Ostertagia ostertagi, biology of the free-living stages of, 295
Ovary, of *Glossina*, development of, 545

Panthera pardus, host of *Taenia ingwei*, 533
Paracryptogonimoides nocti, gen.nov., sp.nov., parasitic in the gut of the Red Sea fish, *Sargus noct*, 233
Paracryptogonimus rostratus, sp.nov., parasitic in the gut of the Red Sea fish, *Lethrinus rostratus*, 233
Pharyngodon morgani, sp.nov., nematode parasite of the intestine of the lizard, *Mabuya striata*, 395
Plasmodium gallinaceum and *P. juxtanucleare*, synergism of, with Coccidia in the chick, 257
Polynema natans, synonym of *Caraphractus cinctus*, 269
Polypedilum vanderplanki, occurrence of, in Northern Nigeria, 237
Protozoa, parasitic in Anatidae, 1
, parasitic in the hind-gut of cockroaches, responses of, to environmental changes, 415, 437, 465
Pterygosoma adramitana, sp.nov., scale mite parasitic on the lizard *Agama adramitana*, 241

P. caucasica, sp.nov., scale mite parasitic on the lizard *Agama caucasica*, 241
P. foliosetis, sp.nov., scale mite parasitic on the lizard *Charasia dorsalis*, 241
P. mutabilis sp.nov., scale mite parasitic on the lizard *Agama mutabilis*, 241
P. sinaita, sp.nov., scale mite parasitic on the lizard *Agama sinaita*, 241
P. singularis sp.nov., scale mite parasitic on the lizard, *Agama colonorum*, 241
Pterygosomidae (Acarina), new species of, parasitic on lizards, 241

Raja, species of, as hosts of *Echinobothrium acanthinophyllum* n.sp., and *E. brachysoma*, 407
Rat, abnormal host of *Nematospiroides dubius*, effect of sex of, on experimental infections, 499
, resistance of, to *Nippostrongylus muris*, 347, 353, 357
Rhodnius prolixus, amino acids of, and analysis of excretory material and haemolymph of, 309, 319

Sargus noct, Red Sea fish host of the trematodes *Mahrosa sargusi* gen.nov., sp.nov., and *Paracryptogonimides nocti*, 233
Scale-mites, agamid, new species of, parasitic on lizards, 241
Sporocysts of *Neodiplostomum intermedium*, 133
Stenophora gryllodes-sigillatae, a new species of cephaline gregarine parasitic in the Indian cricket, *Gryllodes sigillatus*, 117
Synonymy of *Ixodes festai*, 497

Taenia crocutae, sp.nov., parasitic in *Crocuta crocuta* in Southern Rhodesia, structure and taxonomy of, 533
T. ingwei, parasitic in *Panthera pardus* in Southern Rhodesia, redescription of, 533
Thelastoma bulhõesi, origin of the sticky coat of the eggs of, 379
Toxoplasma gondii, behaviour of an avirulent strain of, in B-vitamin deficient chicks, 265
Trematoda, parasitic in fishes in the Red Sea, 233
, amphistome, of Indian sheep, goats and buffaloes, excretory system of, 127
Trionyx gangeticus, host of the intestinal nematode, *Dichelyne trionyxi*, sp.nov., 401
Trypanosoma gandéi, parasitic in African fish, 263
T. malapteruri, parasitic in African fish, 263
T. nilotica, parasitic in African fish, 263
T. toddi, synonymy of, 263
Trypanosomes, of African freshwater fish, 263
Tsetse fly (*Glossina*), development of the ovary of, 545

Wallago attu, host of the intestinal nematode, *Dichelyne wallagoni*, sp.nov., 401

Zibethailurus serval, host of the cyclophyllidean cestode, *Joyeuxiella fuhrmanni*, in Southern Rhodesia, 533